AMENDMENTS TO THE CLAIMS

1. (Currently amended) An immunological composition comprising:

a physiologically acceptable non-toxic vehicle containing a purified non-proteolytic streptococcal pyrogenic exotoxin B (SPEB), which produces an immune response in a mammal against Group A streptococcal infection, wherein said SPEB comprises at least one amino acid substitution and said amino acid substitution occurs at the amino acid position selected from the group consisting of Lysine145 (Lys145), ~~Glutamine185 (Gln185)~~, Cysteine192 (Cys192), Histidine340 (His340), Asparagine356 (Asn356) and Tryptophan357 (Trp357).

4. (Previously presented) The immunological composition of claim 1, wherein said infection is selected from the group consisting of pharyngitis, tonsillitis, skin infections, acute rheumatic fever, scarlet fever, post-streptococcal glomerulonephritis, and toxic-shock-like syndrome.

5. (Previously presented) The immunological composition of claim 1 further comprising a purified streptococcal M protein antigen.

6. (Currently amended) A method of producing an immune response in mammals comprising:

administering to a mammal an immunological composition comprising, a purified non-proteolytic streptococcal pyrogenic exotoxin B (SPEB) in an amount sufficient to produce an Immune response to a Group A streptococcal infection, wherein said SPEB comprises at least one amino acid substitution and said amino acid substitution occurs at the amino acid position selected from the group consisting of Lys145, ~~Gln185,~~ Cys192, His340, Asn356 and Trp357.

7. (Previously presented) The method of claim 6, wherein said immunological composition is given by parenteral administration.

8. (Previously presented) The method of claim 7, wherein said parenteral administration is selected from the group consisting of subcutaneous administration and intramuscular administration.

9. (Previously presented) The method of claim 6, wherein said immunological composition is administered orally.

10. (Previously presented) The method of claim 6, wherein said infection is selected from the group consisting of pharyngitis, tonsillitis, skin infections, acute rheumatic fever, scarlet fever, post-streptococcal glomerulonephritis, sepsis, and toxic-shock-like syndrome.

11. (Previously presented) The method of claim 6, wherein said immunological composition is administered in multiple doses.

12. (Previously presented) The method of claim 6 further comprising: administering to the mammal a purified streptococcal M protein antigen.

13. (Previously presented) The method of claim 12, wherein said immunological composition is given by parenteral administration.

14. (Previously presented) The method of claim 13, wherein said parenteral administration is selected from the group consisting of subcutaneous administration and intramuscular administration.

15. (Previously presented) The method of claim 12, wherein said immunological composition is administered orally.

16. (Previously presented) The method of claim 12, wherein said infection is selected from the group consisting of pharyngitis, tonsillitis, skin infections, acute rheumatic fever, scarlet fever, post-streptococcal glomerulonephritis, sepsis, and toxic-shock-like syndrome.

17. (Previously presented) The method of claim 12, wherein said immunological composition is administered in multiple doses.

18. (Previously presented) The immunological composition of claim 1, where said mammal is human.

19. (Previously presented) The method of claim 6, wherein said mammal is a

human.

20. (Currently amended) The immunological composition of claim 1, wherein said amino acid substitution is selected from the group consisting of Lys145→ Alanine(Ala)145, Cys192→ Ala192, Cys192→Serine192 (Ser192), His340→Ala340, ~~Gln185→Ala185,~~ Asn356→Ala356 and Trp357→Ala357.

21. (Currently amended) The method of claim 6, wherein said amino acid substitution is selected from the group consisting of Lys145→Ala145, Cys192→Ala192, Cys192→Ser192, His340→Ala340, ~~Gln185→Ala185,~~ Asn356→Ala356 and Trp357→Ala357.

22. (Previously presented) The immunological composition of claim 20, wherein said amino acid substitution is Cys192→Ala192 or Cys192→Ser192.

23. (Previously presented) The method of claim 21, wherein the amino acid substitution is Cys192→Ala192 or Cys192→Ser192.

24. (Previously presented) The immunological composition of claim 1, wherein said amino acid substitution occurs at Lys145.

25. (Previously presented) The immunological composition of claim 1, wherein said amino acid substitution occurs at Cys192.

26. canceled

27. (Previously presented) The immunological composition of claim 1, wherein said amino acid substitution occurs at Asn356.

28. (Previously presented) The immunological composition of claim 1, wherein said amino acid substitution occurs at Trp357.

29. (Previously presented) The immunological composition of claim 1, wherein said amino acid substitution occurs at His340.

30. (Previously presented) The method of claim 6, wherein said amino acid substitution occurs at Lys145.

31. (Previously presented) The method of claim 6, wherein said amino acid substitution occurs at Cys192.

32. (Previously presented) The method of claim 6, wherein said amino acid substitution occurs at His340.

33. canceled

34. (Previously presented) The method of claim 6, wherein said amino acid substitution occurs at Asn356.

35. (Previously presented) The method of claim 6, wherein said amino acid substitution occurs at Trp357.

46. (Currently amended) A method of producing an immune response in mammals comprising:

administering to a mammal the immunological composition of claims 1, 5, 20, 22, 24, 25, ~~26,~~ 27, 28, or 29 in an amount sufficient to produce an immune response to a Group A streptococcal infection.

47. (Previously presented) The method of claim 46, wherein the mammal is human.